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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/629,083

07/28/2003

Richard L. Baer

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10/03/2007

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EXAMINER

TRAN, NHAN T

ART UNIT

PAPER NUMBER

2622

NOTIFICATION DATE

DELIVERY MODE

10/03/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/629,083

Applicant(s)

BAER ET AL.

Examiner

Nhan T. Tran

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☒ Claim(s) 13-15 is/are rejected.
- 7) ☒ Claim(s) 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 7/28/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 13 & 14 are rejected under 35 U.S.C. 102(a) as being anticipated by Kimura et al. (US 6,590,553).

Regarding claim 13, Kimura discloses a method for reducing artifacts caused by illuminant flicker (see Figs. 13 & 20; col. 58, lines 47-55; col. 24, lines 31-35 and col. 31, lines 26-41), said method comprising:

providing pixel circuits (pixel circuits of a display panel shown in Figs. 3-8);

operating the pixel circuits in a bi-directional mode during which first information corresponding to a scene is acquired (by writing the image onto the display) in forward row-sequential order of the pixel circuits (from top to bottom in a first field) and then

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second information corresponding to the scene is acquired in reverse row-sequential order of the pixel circuits (from bottom to top in a second field) (see col. 31, lines 26-41).

Regarding claim 14, as disclosed by Kimura in col. 31, lines 26-41, the first and second fields are displayed to form a frame and then repeatedly performing scanning to form frames of image. Thus, Kimura also meets combining the first information and the second information to form frames of image information corresponding to the pixel circuits.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (US 6,590,553) in view of Mead et al. (US 2002/0015101).

Regarding claim 15, although Kimura discloses that that a duration of a detection cycle of the pixel circuits corresponds to acquisition of the first information and acquisition of the second information (col. 31, lines 26-41), Kimura is silent as to aligning the detection cycle with the flicker cycle of the illuminant.

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However, it is well recognized by Mead that output of pixels are sampled more than once during a flicker period to align with the flicker period for reducing the flicker (see Mead, [0143]).

Therefore, it would have been obvious to one of ordinary skill in the art to align the detection cycle with the flicker cycle of the illuminant so as to effectively reduce flicker in view of Mead.

***Allowable Subject Matter***

4. Claims 1-12 are allowed.
5. Claims 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Regarding claims 1, the prior art of record fails to teach or fairly suggest the *combination of all limitations* of claim 1 for reducing artifacts caused by illuminant flicker that includes "...the image sensor being operable to combine the first information and the fourth information to provide a first output signal corresponding to the first of the pixel circuits, and to combine the second information and the third information to provide a second output signal corresponding to the second of the pixel circuits."

Regarding claim 4, the prior art of record fails to teach or fairly suggest the *combination of all limitations* of claim 4 for reducing artifacts caused by illuminant flicker that includes "...an image processor operable to receive the first information and the

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second information and to combine the first information and the second information to provide an output signal corresponding to the scene.”

Regarding claims 2 & 3, these claims are allowed as being dependent from claim

1.

Regarding claims 5-12, these claims are allowed as being dependent from claim

4.

Regarding claim 16, the prior art of record also fails to teach or fairly suggest the limitations of claim 16, *in combination with claims 13 & 15*, including “...wherein, in aligning the detection cycle, a first time period during which the first information is acquired corresponds to a first portion of the illuminant waveform, and a second time period during which the second information is acquired corresponds to a second portion of the illuminant waveform, demarcation of the first portion and the second portion of the illuminant waveform occurring at a location of symmetry of the illuminant waveform about an arbitrary illumination level.”

Regarding claims 17 & 18, these claims are dependent from claim 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

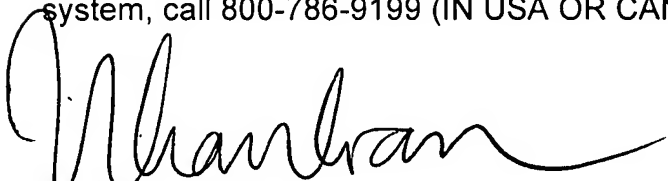
**Conclusion**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Nhan Tran', with a long, sweeping horizontal stroke at the end.

NHAN T. TRAN  
Patent Examiner